PTO/SB/08a (01-08)
Approved for use through 05/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
of a collection of information unless it contains a valid OMB control number. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of infor

Substitute for form 1449A/PTO		
INFORMATION DISCLOSURE		Complete if Known
STATEMENT BY APPLICANT	Application Number	10/644,703
	Filing Date	Aug 19, 2003
	First Named Inventor	Louis A. Pena
	Art Unit	1647
	Examiner Name	DANG, lan D.
(Use as many sheets as necessary)		
Sheet 1 of 4	Attorney Docket No: 3	30817-1008-CIP

			US PAT	ENT DOCUMENTS	
Examiner Initial *	Cite No	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages
mitiai "	NO	Number			or RelevantFigures Appear
/I.D./		20010014662	Aug 16, 2001	Rueger, David C., et al.	1
00000		20040038348	Feb 26, 2004	Pena, Louis A., et al.	1
000000		20040151764	Aug 5, 2004	Zamora, Paul	\
200000		20050196425	Sep 8, 2005	Zamora, Paul O.	
00000		20050222394	Oct 6, 2005	Zamora, Paul O., et al.	
000000		20060024347	Feb 2, 2006	Zamora, Paul O., et al.	
00000		20060199764	Sep 7, 2006	Zamora, Paul O., et al.	
00000		20060205652	Sep 14, 2006	Zamora, Paul et al.	
00000		20080063622	Mar 13, 2008	Zamora, Paul O., et al.	
		20080160169	Jul 3, 2008	Zamora, Paul O., et al.	
00000		20080166392	Jul 10, 2008	Zamora, Paul O., et al.	
000		20080227696	Sep 18, 2008	Takahashi, Kazuyuki et al.	
000		20090111743	Apr 30, 2009	Takahashi, Kazuyuki	\ /
000		20090143566	Jun 4, 2009	Zamora, Paul O., et al.	\ /
000		3272204	Sep 13, 1966	Artandi, Charles et al.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
00000		4193138	Mar 18, 1980	Okita, Koichi	V
0000		4747848	May 31, 1988	Maini, Roshan	Λ
0000		4842575	Jun 27, 1989	Hoffman, Jr., Harmon et al.	//
0000		5108436	Apr 28, 1992	Chu, George H., et al.	/ /
0000		5197977	Mar 30, 1993	Hoffman, Jr., Harmon et al.	/ \
00000		5509899	Apr 23, 1996	Fan, You-Ling et al.	/ /
8		5510418	Apr 23, 1996	Rhee, Woonza M., et al.	
8		5650234	Jul 22, 1997	Dolence, Eric K., et al.	
0000		5665114	Sep 9, 1997	Weadock, Kevin et al.	
0000		5679673	Oct 21, 1997	Bowen, Wayne et al.	<u> </u>
		6096798	Aug 1, 2000	Luthra, Ajay K., et al.	
		6099562	Aug 8, 2000	Ding, Ni et al.	1
8		6120904	Sep 19, 2000	Hostettler, Fritz et al.	/
		6231600	May 15, 2001	Zhong, Sheng-ing	<i> </i>
8		6231892	May 15, 2001	Hubbell, Jeffrey A., et al.	1
8		6248057	Jun 19, 2001	Mavity, William G., et al.	1/
000		6258371	Jul 10, 2001	Koulik, Edouard et al.	
		6270788	Aug 7, 2001	Koulik, Edouard et al.	
V		6306165	Oct 23, 2001	Patnaik, Birendra K., et al.	

/lan Dang/ **EXAMINER**

DATE CONSIDERED

10/23/2009

Approved for use through 05/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	e for form 1449A		<u></u>		or morniation unless it contains a valid offic control number.
INFO	RMATION	DISCLOSU	JRE		Complete if Known
STAT	EMENT B	Y APPLICA	NT	Application Number	10/644,703
				Filing Date	Aug 19, 2003
				First Named Inventor	Louis A. Pena
				Art Unit	1647
				Examiner Name	DANG, lan D.
(U	Jse as many she	ets as necessary)			
Sheet	2	of	4	Attorney Docket No: 3	30817-1008-CIP

			US PAT	ENT DOCUMENTS	
Examiner Initial *	Cite No	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages & RelevantFigures Appear
/I.D./		6309660	Oct 30, 2001	Hsu, Li-Chien et al.	
		6426332	Jul 30, 2002	Rueger, David C., et al.	
		6548634	Apr 15, 2003	Ballinger, Marcus et al.	
		6846853	Jan 25, 2005	Shimp, Lawrence A.	
		6863899	Mar 8, 2005	Koblish, Antony et al.	V
		6949251	Sep 27, 2005	Dalal, Paresh S., et al.	
		7041641	May 9, 2006	Rueger, David C., et al.	
		7166574	Jan 23, 2007	Pena, Louis et al.	
		7414028	Aug 19, 2008	Zamora, Paul O., et al.	
		7468210	Dec 23, 2008	Zamora, Paul O.	
. ,		7482427	Jan 27, 2009	Pena, Louis et al.	
V		7528105	May 5, 2009	Pena, Louis A., et al.	/

			FOREIGN PA	TENT DOCUMENTS		
Examiner Initials*	Cite No	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or RelevantFigure Appear	T ²
/I.D./		WO- WO0064481	Nov 2, 2000	Sakiyama, Shelly et al.		
/I.D./		WO- WO0210221	Feb 7, 2002	Zamora, Paul et al.		No.

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/I.D./		BAIRD, ANDREW et al., "Receptor- and heparin-binding domains of basic fibroblast growth factor", Proc. Natl. Acad. Sci., Vol. 85 04/1988, 2324-2328	
000000000000000000000000000000000000000		FEELEY, BRIAN et al., "Influence of BMP's on the Formation of Osteoblastic Lesions in Metastatic Prostate Cancer", <u>Journal of Bone and Mineral Research</u> , <u>Vol. 20 No. 12</u> 2005, 2189-2199	
V		HEALY, KEVIN et al., "Designing biomaterials to direct biological responses", Ann N Y Acad Sci. 875 1999, 24-35	

EXAMINER	/lan Dang/	DATE CONSIDERED	10/23/2009

PTO/SB/08a (01-08)
Approved for use through 05/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE of a collection of information unless it contains a valid OMB control number. Under the Paperwork Reduction Act of 1995, no persons are required to respond

Citati iii	apolition rica	20110117101 01 101	o, no percent	are required to respond to a concedion of	of information unless it contains a valid Olvid Control humber.
Substitute	e for form 1449A	/PTO			
INFO	RMATION	DISCLOS	URE		Complete if Known
STAT	EMENT B	Y APPLICA	ANT	Application Number	10/644,703
				Filing Date	Aug 19, 2003
				First Named Inventor	Louis A. Pena
				Art Unit	1647
				Examiner Name	DANG, lan D.
(L	Jse as many she	ets as necessary)			
Sheet	3	of	4	Attorney Docket No: 3	80817-1008-CIP

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		KIRSCH, THOMAS et al., "BMP-2 Antagonists Emerge from Alterations in the	
/I.D./		Low-Affinity Binding Epitope for Receptor BMPR-II", EMBO Journal, Vol 19, No. 13 2000, 3314-3324	
000000000000000000000000000000000000000		KLOEN, P. et al., "BMP signaling components are expressed in human fracture callus", Bone 33 2003, 362-371	
***************************************		KONISHI, SADAHIKO et al., "Hydroxyapatite Granule Graft Combined with Recombinant Human bone Morphogenic Protein-2 for Solid Lumbar Fusion", Journal of Spinal Disorders & Techniques, Vol. 15, No. 3 2002, 237-244	
000000000000000000000000000000000000000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LAREDO, JAMES et al., "Silyl-heparin bonding improves the patency and in vivo thromboresistance of carbon-coated polytetrafluoroethylene vascular grafts", The Midwestern Vascular Surgical Society 09/2003, 1-7	
000000000000000000000000000000000000000		LU, XINJIE et al., "Preferential antagonism of the interactions of the integrin alpha llb beta 3 with immobilized glycoprotein ligans by snake-venom RGD (Arg-Gly-Asp) proteins", Biochem J 304 1994, 929-936	
0000		MINAMIDE, AKIHITO et al., "Evaluation of Carriers of Bone Morphogenetic Protein for Spinal Fusion", SPINE Vol. 26, No. 8 2001, 933-939	
000000000000000000000000000000000000000		MURNAGHAN, MARK et al., "Time for treating bone fracture using rhBMP-2: A randomised placebo controlled mouse fracture trial", <u>Journal of Orthopaedic Research 23</u> 2005, 625-631	
		NIIKURA, T. et al., "Gloval Gene Profiling in Experimental Fracture Nonunions Reveals a Down Regulation of BMP Gene Expression", <u>52nd Annual Meeting of</u> the Orthopaedic Research Society, Paper No. 1673 2006	
000000000000000000000000000000000000000		SAITO, ATSUHIRO et al., "Activation of osteo-progenitor cells by a novel synthetic peptide derived from the bone morphogenetic protein-2 knuckle epitope", Biochimica et Biophysica Acta 1651 2003, 60-67	
		SAITO, ATSUHIRO et al., "Prolonged ectopic calcification induced by BMP-2-derived synthetic peptide", www.interscience.wiley.com 2004, 1-7	
***************************************		SEOL, YANG-JO et al., "Enhanced osteogenic promotion around dental implants with synthetic binding motif mimicking bone morphogenetic protein (BMP)-2", Journal of Biomedical Materials Research Part A; www.interscience.wiley.com 2005, 1-8	
		SHEN, WEI-CHIANG et al., "Poly(I-lysine) has different membrane transport and drug-carrier properties when complexed with heparin", Proc Natl Acad Sci USA 12/1981, 7589-93	

/lan Dang/	DATE CONSIDERED	10/23/2009
------------	-----------------	------------

PTO/SB/08a (01-08)
Approved for use through 05/31/2008, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	e for form 1449/				or mornation unless it contains a valid own containing
INFO	RMATION	I DISCLOSI	JRE		Complete if Known
STAT	EMENT E	BY APPLICA	ANT	Application Number	10/644,703
				Filing Date	Aug 19, 2003
				First Named Inventor	Louis A. Pena
				Art Unit	1647
				Examiner Name	DANG, lan D.
(1	Use as many sh	eets as necessary)			
Sheet	4	of	4	Attorney Docket No: 3	80817-1008-CIP

	OTHER	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/I.D./		SMITH, TEMPLE F. et al., "The challenges of genome sequence annotation of "The devil is in the details"", Nature Biotechnology, Volume 15 November 1997,	
		1222-1223	
000000		TANAKA, H. et al., "Involvement of bone morphogenic protein-2 (BMP-2) in the	
0000000		pathological ossification process of the spinal ligament", Rheumatology 2001;40 05/09/2001, 1163-1168	
		TONG, YEN et al., "Peptide surface modification of poly(tetrafluoroethylene-co-	
00000		hexafluoropropylene) enhances its interaction with central nervous system	
000000		nuerons", J Biomed Mater Res 42 1998, 85-95	
000000		TUNG, CHING-HSUAN et al., "Novel branching membrane translocational	
XX		peptide as gene delivery vector", Bioorg Med Chem 10(11) 2002, 3609-3614	
99999		VARKEY, MATHEW et al., "Growth factor delivery for bone tissue repair: an	
XXX		update", Expert Opin. Drug Deliver. (2004) 1(1) 2004, 19-34	
999999		WELLS, JAMES A., "Additivity of Mutational Effects in Proteins", <u>American</u>	
		<u>Chemical Society, Vol. 29, No. 37</u> September 18, 1990, 8509-8516	
99999		YANO, AKIRA et al., "RGD motif enhances immunogenicity and adjuvanicity of	
1		peptide antigens following intranasal immunization", <u>Vaccine 22(2)</u> 2003, 237-243	
000000		ZAMORA, PAUL O. et al., "Local Delivery of Basic Fibroblast Growth Factor	
00000		(bFGF) Using Adsorbed Silyl-heparin, Benzyl-	
		bis (dimethylsilylmethyl) oxycarbamoyl-heparin", <u>Bioconjugate Chem. 2002</u> 08/20/2002, 920-926	

10/23/2009 /lan Dang/ **DATE CONSIDERED EXAMINER**